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201.

MATH ON THE JOB

Danielle is the owner of a company in Saint John, New Brunswick, that installs ceramic tile, marble, slate, terrazzo, and granite for exterior and interior walls, floors, and other surfaces. Early spring is a slow time for this type of business, so Danielle's company is offering discounts on materials left in stock from last year. To get the most from this **promotion**, Danielle needs to calculate what percentage discount to offer on each type of material, taking into account what her costs were and how much stock remains. She may also offer a variety of discounts based on quantities bought.

The company has in stock $12'' \times 12''$ slate in sandstone colour that sold for \$6.99 per square foot last year. If Danielle offers it at a 15% discount, what will the sale price be for 50 square feet of slate, before taxes?

During periods when business is slow, a business owner can increase sales by getting in touch with past or potential clients.



EXPLORE THE MATH

When you go shopping, you often see that something is on sale for a discounted price. Frequently, the discount is expressed as a percent. For example, a clothing store may be selling certain items at 20% or 50% off. This may be because the clothes are out of season, out of fashion, or the store buyer may have ordered more than he or she could sell.

Businesses may use other sales promotions to attract buyers. Coupons usually give you a certain amount off the retail price, 25¢ or \$1.00 for example. Companies often use coupon offers to attract consumers so they will try out a new product. More and more, businesses use points systems or customer cards to encourage customer loyalty by offering lower prices or prizes. Do you participate in any rewards programs?

As a consumer, remember to consider the amount of taxes as well as the listed price when making a decision to buy.

promotion: an activity that increases awareness of a product or attracts customers

Example 1

Jonas needs to buy a new winter jacket. He has waited for a sale, and a jacket that originally cost \$249.95 is now discounted 20%. How much will the jacket cost if Jonas lives in Nova Scotia, where HST is 15%?

$$\begin{aligned} \$249.95 \times 0.20 &= \$49.99 \\ 249.95 - 49.99 &= \$199.96 \\ \downarrow \\ 249.95 \times 0.80 &= \$199.96 \\ &\quad \times 1.15 \\ &= \$229.95 \end{aligned}$$

Practice

$$\begin{aligned} \$89.99 &\times 0.70 \\ &= \$62.99 \\ &\times 1.15 \\ &= \$72.44 \end{aligned}$$

Saving 30%
0.30
NS

Example 2

A fisherman sells fresh clams, live lobster, and tuna at the dock in Summerside, Prince Edward Island, directly to customers on Saturdays and Sundays. As the weekend winds down, he needs to sell off his stock, otherwise it will spoil. He has a sale! He offers 20% off all his prices.

Lobster is regularly \$15.00/kg and clams are \$14.00/kg. At a 20% discount, what is the price of 3 kg of lobster? How much would 500 g of clams cost?

Classwork/Homework

Text Pg. 37 #1 to 6
and work on
Assignment due
Thursday

skip
#4

